### Babeș-Bolyai University Habilitation Thesis in the Field of Sociology

## *Territorial and Economic Dynamics in Central and Eastern Europe: From Socialist Urbanization to Contemporary Metropolises Abstract*

Norbert Petrovici

### 1. Scientific, professional and academic achievements

When tracing the trajectory of my scientific, professional, and academic career, it becomes evident that my work revolves around four interconnected research directions: urbanisation sociology, urban economic sociology, regional sociology, and the sociology of spatialised knowledge. These axes do not function in isolation; rather, they are interwoven through the examination of how urban transformations, economic restructuring, regional disparities, and knowledge production intersect and shape each other. My research has consistently aimed to understand how socio-economic processes produce and transform spatial realities, particularly in Central and Eastern Europe, where historical legacies and contemporary global pressures converge. These inquiries have been grounded in a combination of advanced quantitative methods and qualitative approaches, enabling a comprehensive understanding of the ways labour restructuring, capital flows, and territorial reconfigurations manifest in everyday life.

From the outset of my academic journey at Babeş-Bolyai University (UBB), further enriched by international specialisations—such as data analysis at the University of Michigan and social network analysis at the University of Ljubljana—I have been committed to deepening my understanding of spatial and economic transformations. My doctoral research focused on the spatial reconfigurations of urban spaces in post-socialist contexts, leading to postdoctoral studies on urban growth regimes and local economic integration. Over time, my teaching at UBB has become an extension of these research interests. I have developed and taught courses on statistical methods, data visualisation, and urban economic sociology, fostering students' abilities to apply empirical tools to contemporary urban issues. Through the supervision of undergraduate and master's theses, I have contributed to shaping a new generation of researchers adept at tackling intricate social phenomena. Beyond the academic setting, collaborations with local and international institutions, including the World Bank and the European Commission, have allowed me to translate empirical research into actionable insights, particularly in urban planning, regional development strategies, and participatory budgeting.

These research efforts are organised along four fundamental directions, each evolving from previous work yet oriented towards future investigations. In urbanisation sociology, my studies have addressed the post-socialist restructuring of cities, focusing on periurbanisation processes and the fragmentation of urban growth-phenomena I have conceptualised through the lens of 'exploded urbanism.' Investigating the emergence of economic enclaves, the elasticity of peripheral spaces, and the infrastructural deficits that characterise metropolitan expansions in Cluj-Napoca and Timisoara, I have sought to capture how global capital and local governance mechanisms co-produce uneven urban landscapes. In urban economic sociology, I have concentrated on how labour markets respond to foreign direct investment, how productive informality emerges at the intersections of global economic chains and local economies, and how semi-peripheral urban environments navigate these pressures. Regional sociology has led me to examine how infrastructural investments and public service distributions give rise to territorial inequalities, revealing the persistence of uneven development within Romania and beyond. The sociology of spatialised knowledge, in turn, investigates how knowledge circulates within institutional networks, how geopolitical hierarchies structure epistemic production, and how infrastructural 'shadows' shape urban governance. By analysing these processes, I have been able to reflect on how certain knowledge regimes dominate urban planning discourses while local counter-practices negotiate or resist these narratives.

#### 2. Scientific contributions

As my research trajectory progresses, it moves from an early focus on class restructuring and housing inequalities to broader investigations into labour precariousness, global economic integration, and the politics of knowledge circulation. These shifts are not merely thematic but also methodological, as future projects seek to refine the use of spatial modelling and network analysis. Such tools offer the possibility of mapping economic flows and regional disparities with greater precision, enhancing the capacity to understand how capital accumulation, infrastructural investments, and policy decisions coalesce to produce differentiated spatial outcomes. In this evolving landscape, mentoring doctoral students becomes central to my academic work, not only to support their empirical inquiries but to ensure that their research speaks to both theoretical debates and pressing policy concerns. By fostering a critical engagement with the socio-economic realities of urban and regional transformations, these projects aim to contribute to both scholarly discussions and practical solutions addressing the challenges faced by semi-peripheral contexts in an increasingly interconnected world.

This section brings together my scientific contributions across four interconnected fields: urban sociology, urban economic sociology, regional sociology, and the sociology of spatialised knowledge. Examining how post-socialist urban and regional transformations in Romania have unfolded under the influence of global economic integration, local institutional arrangements, and shifting socio-political conditions, my research offers theoretical, methodological, and empirical insights into urbanisation, economic restructuring, regional inequalities, and knowledge production in semi-peripheral contexts. Throughout my work, I seek to analyse how economic logics and political decisions shape spatial processes, while also considering how local actors engage with, adapt to, or contest these broader forces.

In the field of *urban sociology*, my research questions linear narratives of post-socialist urban development, focusing on how labour, capital, and state arrangements interact to reshape urban spaces. Far from depicting urban change as a straightforward transition towards capitalist modernity, I investigate how global production networks intersect with socialist legacies and local governance. Employing methods ranging from in-depth interviews and archival research to spatial econometrics and network analysis, I have studied how economic

integration since the mid-20th century has positioned Romanian cities within global capitalist circuits. Early work explored the rearticulation of working-class identities in Cluj during the post-socialist transition, addressing how class politics intertwined with emergent neonationalist discourses. Subsequent studies traced Romania's integration into global markets through industrial exports and infrastructural investments, demonstrating how semiperipherality was negotiated through state-driven and foreign-led economic initiatives. More recent investigations extend this focus to peri-urban spaces, where fragmented urban expansions reveal the interplay between housing demands, labour mobility, and foreign direct investment. Through concepts such as 'exploded urbanism', my research conceptualises these territories as dynamic zones shaped by overlapping economic specialisations, infrastructural networks, and capital flows, providing an alternative perspective to conventional suburbanisation models that often overlook the particularities of post-socialist contexts.

Turning to urban economic sociology, my research explores how institutional networks and power relations structure access to labour, property, and resources within Romanian cities. Moving beyond binary distinctions between formal and informal economies, I have analysed how productive informality, class restructuring, and global value chains shape urban economic landscapes. Initial studies on emerging business elites in Cluj revealed that informal practices are not residual but constitute essential mechanisms of economic integration. Challenging assumptions that associate informality with institutional failure, I have shown how it functions within broader systems of global capital accumulation. Subsequent work addressed how labour markets in semi-peripheral economies are racialised and precarious, with global production chains perpetuating exploitative conditions. The notion of the 'depoliticisation of the firm' captures how managerial discourses shift responsibility for economic insecurity onto workers, thereby legitimising precarity. Further research into consumer spaces and retail gentrification in Cluj demonstrates how urban economies simultaneously marginalise and symbolically include working-class populations, with 'bivalent class narratives' illustrating this dual dynamic. Collectively, these contributions shed light on how global economic transformations resonate at the local level, reconfiguring class relations and economic opportunities in ways that challenge prevailing understandings of urban capitalism.

My work in *regional sociology* addresses how industrial restructuring, infrastructural investments, and policy interventions shape spatial inequalities across post-socialist Romania. Rather than treating regions as mere administrative units, I examine them as historically constructed socio-economic spaces, influenced by state planning, transnational capital, and local institutional capacities. Analyses of socialist-era industrial policies show how they produced hierarchised urban networks, with functional specialisations persisting despite post-1989 deindustrialisation. While cities like Cluj capitalised on inherited infrastructure to attract high-value industries, other regions experienced economic stagnation and demographic decline. Comparative research on metropolitan areas such as Cluj and Timisoara has revealed divergent development paths: the former oriented towards knowledge-intensive services, the latter retaining a manufacturing base linked to global supply chains. Recent work on health infrastructure distribution underscores how spatial inequalities in public services reflect not only economic logics but also political decisions, including privatisation and decentralisation policies that exacerbate territorial disparities. By combining spatial econometric analysis with qualitative fieldwork, I provide a detailed account of how regional economies are simultaneously shaped by global integration and enduring structural imbalances.

The *sociology of spatialised knowledge forms* the fourth pillar of my research agenda, investigating how knowledge production is embedded in spatial, institutional, and power relations within semi-peripheral contexts. Drawing on critical traditions in social theory, I have explored how epistemic regimes emerge, how they are legitimised, and how they reflect geopolitical hierarchies. Early studies examined the post-socialist trajectory of Romanian sociology, introducing the concept of the 'paper-trail state' to describe how bureaucratic processes influence both governance and knowledge production. This perspective revealed the intricate relationships between local experts, state institutions, and international networks, challenging reductive accounts of socialist-era science as monolithic or merely instrumental. Subsequent research explored how cultural participation functions as an epistemic infrastructure, with 'cultural commoning' capturing how community-driven cultural practices foster collective well-being and urban cohesion. These studies interrogate market-oriented approaches to cultural policy, advocating for participatory models that recognise the importance of locally situated knowledge in shaping urban environments. By examining how semi-peripheral contexts mediate global epistemic flows, my work contributes to broader

debates on epistemic justice and the geopolitics of knowledge, highlighting the co-production of space, knowledge, and power.

Throughout my career, these research trajectories have not only advanced scholarly debates but also informed policy discussions, addressing pressing questions around urban inequality, regional development, and knowledge governance. By foregrounding the interconnectedness of economic, political, and spatial processes, my work contributes to a more nuanced understanding of how semi-peripheral regions navigate global pressures while grappling with their historical legacies.

# 3. Future Plans for Professional, Scientific, and Academic Career Development

*My teaching* will remain firmly intertwined with my research agenda, aiming to cultivate students' ability to integrate advanced analytical methods with critical perspectives on social and spatial processes. Strengthening collaboration with doctoral students within the Centre for Interdisciplinary Science of Data will be central to this effort, enabling their involvement in comparative and multidisciplinary research projects. To enhance this engagement, I plan to develop a mentorship programme tailored for Master's and PhD students, offering them opportunities to participate in studies on exploded urbanism, energy transitions, and regional inequalities. Courses will emphasise the acquisition of practical competencies, including geospatial data analysis, economic network analysis, and spatial modelling. Fieldwork activities, workshops on data visualisation, and project-based learning will complement these courses, ensuring that students can apply theoretical knowledge to address concrete regional and urban challenges.

My research is deeply rooted in *applied projects* that aim to inform public policy and address pressing urban and regional issues. Collaborations with local administrations in Cluj-Napoca and Timișoara have centred on urban mobility analysis, the unequal distribution of educational infrastructure, and the development of economic enclaves. Integrating mobile network signalling data with census statistics has enabled me to map commuting patterns with a level of precision that offers valuable insights for public transport planning. Research on urban energy transitions, conducted in partnership with local authorities and nongovernmental organisations, proposes practical solutions for improving energy efficiency and mitigating resource access inequalities. These projects illustrate how my research, while advancing academic knowledge, directly contributes to enhancing the quality of life in the regions under study and supports the formulation of evidence-based policies.

Consolidating *international collaborations* and expanding global research networks constitute a vital component of my professional development. Existing partnerships with researchers such as André Torre and Sébastien Bourdain will continue to explore topics related to institutional proximity, multi-level governance, and regional development. My aim is to expand comparative research on urbanisation and economic transitions in Central and Eastern Europe by participating in Horizon Europe projects and engaging with networks like the Regional Studies Association (RSA) and EUGEO. Encouraging doctoral and Master's students to connect with these networks, I will support their efforts to publish in leading academic journals and facilitate their participation in international conferences. By nurturing these connections, I seek to elevate the international visibility of Romanian sociology, ensuring that research on urbanisation, regional inequalities, and spatialised knowledge contributes meaningfully to global scholarly discussions.

*Future research* will deepen my exploration of how labour, capital, and state structures shape urban spaces, extending previous studies on peri-urbanisation to investigate how economic enclaves, urban mobility, and infrastructural disparities reconfigure the urban fabric of Cluj-Napoca and Timișoara. Key questions will examine the formation and persistence of foreign direct investment-led economic enclaves in semi-peripheral economies, the consequences of suburban expansion for urban mobility and territorial inequalities, and how residential peripheralisation strains public services such as education and transport. Methodologically, this research will employ mobile network data to map commuting patterns, use Exponential Random Graph Models (ERGM) to analyse economic networks, and apply spatial regression models to study access to education. Theoretical developments will refine concepts such as 'economic enclaves', 'elastic peripheries', and 'infrastructural shadows' to articulate the uneven and fragmented processes of urbanisation shaped by foreign capital and local governance constraints.

In *urban economic sociology*, my research will explore historical continuities and ruptures within Romania's urban economies, focusing on how socialist industrialisation, post-socialist adaptation, and global economic integration intersect to shape local economic structures.

Investigations will address topics including the export-oriented production of Romania's socialist chemical industry between 1959 and 1989, the entrepreneurial resilience of innovative start-ups during the COVID-19 pandemic, and the governance of innovation within multinational subsidiaries through an analysis of patent co-authorship networks. Employing a combination of archival research, quantitative analyses of trade flows, and network modelling, these studies will examine how local economies navigate global production circuits. Conceptual contributions will include 'industrial dependencies under socialism', which interrogates the long-term effects of planned economies; 'differentiated entrepreneurial resilience', addressing how local actors adapt to global crises; and 'stratified economic integration', which examines the uneven incorporation of local economies into global value chains.

Building on previous work in *regional sociology*, future research will focus on the processes through which economic, social, and political dynamics produce differentiated spatial outcomes. Investigations will explore subjective and objective measures of quality of life in Romanian cities, the evolving semantic contours of the concept of 'local' within regional development discourses, and the spatial distribution of economic growth in relation to political alignments. Employing spatial panel models, hierarchical regressions, and semantic network analyses, these studies will trace how economic trajectories shape regional identities and influence voting behaviours. Concepts such as 'economic diffusion inequality' and 'spatialised economic-political alignment' will be developed to elucidate how interconnected economic and political processes sustain or challenge territorial inequalities.

Research within the *sociology of spatialised knowledge forms* will continue to investigate how knowledge production, spatial configurations, and power relations are mutually constituted. Future studies will explore sociotechnical imaginaries in urban planning in Cluj-Napoca, local contestations of energy transition policies, and the formation of epistemic enclaves in semi-peripheral contexts. Employing mixed methods that combine ethnographic fieldwork, structural equation modelling, and content analysis, this research will reveal how knowledge circulates, materialises, and influences governance practices. Theoretical contributions will include the concept of the 'penumbral state', capturing the ambiguities inherent in local governance; 'epistemic enclaves', referring to concentrated zones of technical expertise; and 'counter-imaginaries', which explore local resistances to dominant policy narratives. These

conceptual tools aim to provide a more refined understanding of how knowledge and power are negotiated within urban and regional transformations, highlighting the dynamic interplay between global policy frameworks and local socio-political contexts.